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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,611	10/14/2003	Frank E. Semersky	1-36691	2924
43935 7590 01/28/2008 FRASER CLEMENS MARTIN & MILLER LLC 28366 KENSINGTON LANE PERRYSBURG, OH 43551				
EXAMINER				
VO, HAI				
ART UNIT		PAPER NUMBER		
1794				
NOTIFICATION DATE		DELIVERY MODE		
01/28/2008		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/684,611

Applicant(s)

SEMERSKY, FRANK E.

Examiner

Hai Vo

Art Unit

1794

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-22, 24 and 26-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 12-22, 24 and 26-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/808)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

1. All of the art rejections have been withdrawn in view of the present amendment and arguments. None of the cited references teach or suggest a container having a structure as recited by the claims. However, upon further consideration, new grounds of rejections are made in view of WO 98/16364.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 27-44 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. The foam cells containing a blowing agent is critical or essential to the practice of the invention, but not included in the claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188 USPQ 356 (CCPA 1976).

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 16, 17, 32, 34 and 35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 16 and 17 are in conflict with claim 12 in terms of foaming. It is unclear as to how the non-foamed layer could have the foam cells that are filled with the gas.

Claim 32 recites the limitation "the blowing agent" in line 32. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 2, 5, 8-10, 12, 13, 18, 19, 22, 26-29, 33, and 35-37 are rejected under 35 U.S.C. 102(b) as being anticipated by WO 98/16364. Clarke (US 6,358,446) will be relied on as an equivalent form of WO 98/16364 for convenience. Clarke teaches a blow molded bottle comprising three layers: an inner non-foamed layer, an intermediate foam layer and an outer non-foamed layer (column 10, lines 20-27, column 11, lines 45-65, and column 12, lines 25-50). The bottle has a threaded portion formed at its end as shown in figure 1. The foam cells are filled with carbon dioxide (column 3, line 65 et seq.; column 9, lines 55-60). The foamed layer and non-foamed layer are made from polypropylene foam material. The foamed layer differs from non-foamed layer in terms of the density. Accordingly, Clarke anticipates the claimed subject matter.
8. Claims 38-40, and 42-44 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 98/16364. Clarke (US 6,358,446) will be relied on as an equivalent form of WO 98/16364 for convenience. Clarke teaches a preform comprising three layers: an inner non-foamed layer, an intermediate foam layer and an outer non-foamed layer (column 5, lines 50-65; column 6, lines 1-25; column 10, lines 20-27, column 11, lines 45-

65, and column 12, lines 25-50). The preform has a threaded portion formed at its end as shown in figure 1. The foam cells are filled with carbon dioxide (column 3, line 65 et seq.; column 9, lines 55-60). The foamed layer and non-foamed layer are made from polypropylene foam material. Clarke does not specifically disclose the fluid being injected in a supercritical state into a single melt of plastic. However, it is a product-by-process limitation not as yet shown to produce a patentably distinct article. It is the examiner's position that the preform of Clarke is identical to or only slightly different than the claimed article prepared by the method of the claim, because both preforms are formed from the same materials, having structural similarity. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or an obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289,291 (Fed. Cir. 1983). It is noted that if the applicant intends to rely on Examples in the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims

and how the Comparative Examples are commensurate in scope with Clarke.

Accordingly, Clarke anticipates or strongly suggests the claimed subject matter.

9. Claims 3, 4, 6, 7, 14, 15, 20, 21, 24, 30, 31 and 41 are rejected under 35

U.S.C. 103(a) as being unpatentable over Clarke (US 6,358,446) as applied to claim 1 above, and further in view of Hayes (US 6,485,819). Clarke does not specifically disclose the plastic resin made from polyethylene terephthalate.

Hayes, however, teaches a blow molded bottle made from an aliphatic-aromatic copolyester (column 13, lines 18-45). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute a copolyester for polypropylene motivated by the desire to provide a combination of higher biodegradation rate with higher thermal properties.

Clarke does not specifically disclose the use of nitrogen or an inert hydrocarbon gas as a blowing agent. Hayes teaches injection of nitrogen, carbon dioxide or an inert hydrocarbon gas into the polymeric melt to provide the desired foaming action in the melt. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to substitute nitrogen or an inert hydrocarbon gas for carbon dioxide as a blowing agent because nitrogen, carbon dioxide and inert hydrocarbon gases are have been shown in the art to be recognized equivalent blowing agents for providing the desired foaming action in the melt.

10. Claims 18-21, 24, 27-31, 33, and 36-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clarke (US 6,358,446) as applied to claim 1 above, in

view of Collette et al (US 4,923,723). Even if the amended claims 18 and 24 include a container comprising the first layer of plastic sandwiched between the third layer of plastic and the second foam, the amendments are still not sufficient to overcome the combined teachings of Clarke and Collette. Clarke teaches that the preformed jar is gas blown in the same mold to finished shape (column 11, lines 63-65). Clarke does not teach a container having a construction: plastic/plastic/foam. Collette, however, teaches a perform for forming a blow molded container comprising an inner layer and outer layer made from PET and an intermediate layer formed from nylon (column 3, lines 20-25). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the multilayer perform of Collette for forming the blow molded container because such is an intended use of the material and Collette provides necessary details to practice the invention of Clarke. The combined teachings of Clarke and Collette suggest a container having a construction as follows: foamed PET/nylon/PET.

11. Claims 32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clarke (US 6,358,446) in view of Collette et al (US 4,923,723) as applied to claim 27 above, and further in view of Hayes (US 6,485,819).

Clarke does not specifically disclose the use of nitrogen or an inert hydrocarbon gas as a blowing agent. Hayes teaches injection of nitrogen, carbon dioxide or an inert hydrocarbon gas into the polymeric melt to provide the desired foaming action in the melt. Therefore, it would have been obvious to one

having ordinary skill in the art at the time the invention was made to substitute nitrogen or an inert hydrocarbon gas for carbon dioxide as a blowing agent because nitrogen, carbon dioxide and inert hydrocarbon gases are have been shown in the art to be recognized equivalent blowing agents for providing the desired foaming action in the melt.

12. Claims 1-5, 8-10, 12, 13, 18, 19, 22, 24, 26-29, 33, 35-40, and 42-44 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Johnson et al (US 4,872,573). Johnson teaches a bottle cap comprising three layers: an inner non-foamed layer, an intermediate foam layer and an outer non-foamed layer (column 3, lines 45-65). The bottle cap further includes at least one layer of barrier resin such as PET, PAN as shown in figures 4 and 5 (column 7, lines 5-10). The bottle cap has a threaded portion formed at its end as shown in figure 1. The foam concentrate comprises sodium bicarbonate and citric acid (column 4, lines 5-10). Hayes (US 6,485,819) is relied on as evidence to show a state of fact – that is, carbon dioxide gas is released from the interaction of the sodium bicarbonate and citric acid to provide the desired foaming action in the polymeric melt (column 15, lines 60-62, Hayes). Likewise, the foam cells are substantially filled with carbon dioxide. The foamed layer and non-foamed layer are made from polypropylene foam material.

The recitation “perform” or “container” has not given patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and the portion of the claim following the

preamble is a self-contained description of the structure not depending for completeness upon the introductory clause. *Kropa v. Robie*, 88 USPQ 478 (CCPA 1951).

Johnson does not specifically disclose a blow molding as well as a fluid being injected in a supercritical state into a single melt of plastic. However, they are product-by-process limitations not as yet shown to produce a patentably distinct article. It is the examiner's position that the bottle cap of Johnson is identical to or only slightly different than the claimed article prepared by the method of the claim, because both articles are formed from the same materials, having structural similarity. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or an obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289,291 (Fed. Cir. 1983). It is noted that if the applicant intends to rely on Examples in the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative

Examples are commensurate in scope with Johnson. Accordingly, Johnson anticipates or strongly suggests the claimed subject matter.

Double Patenting

13. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

14. Claims 1-10, 12-22, 24, 26-44 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-26 of copending Application No. 11/384,979. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claims of the '979 patent application fully encompass the claimed subject matter.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai Vo whose telephone number is (571) 272-1485. The examiner can normally be reached on Monday through Thursday, from 9:00 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Art Unit: 1794

HV

/Hai Vo/
Primary Examiner, Art Unit 1794